

## **CLAIMS**

1.

1           A dispensing closure for fluid products, which comprises:  
2           a closure base including a ledge with a skirt for external securement to a container  
3   finish and a cylindrical wall extending from said ledge,  
4           a collar having a deck with a central opening, a first cylindrical wall surrounding  
5   said opening, and a second cylindrical wall externally surrounding and secured to said cylindrical  
6   wall on said base, and  
7           a dispensing valve of flexible resilient elastomeric construction, said dispensing  
8   valve having a peripheral portion captured in compression between said collar deck and said base  
9   cylindrical wall for securing said valve in position and simultaneously functioning as a seal  
10   between said base and said collar, an intermediate portion underlying said collar deck, an annular  
11   wall portion extending from an inner end of said intermediate portion radially inwardly adjacent  
12   to an inner surface of said first cylindrical collar wall, an inwardly concave inner portion extending  
13   radially inwardly from said annular wall portion, and at least one dispensing slit in said inner  
14   portion.

2.

1           The closure set forth in claim 1 wherein said closure base has an inner skirt for  
2   securement to a container finish and an outer skirt spaced radially outwardly from said inner skirt.

3.

1           The closure set forth in claim 1 wherein said cylindrical wall on said closure base  
2   has an external bead, and said second cylindrical wall on said collar has an internal bead received  
3   over said external bead to secure said closure to said closure base.

4.

1           The closure set forth in claim 1 wherein said collar deck and said base cylindrical  
wall have opposed beads for sealingly pinching said peripheral portion of said valve.

5.

1           The closure assembly set forth in claim 1 wherein said annular wall portion of said  
2   valve is spaced radially inwardly from said inner surface of said second cylindrical collar wall.

6.

1           The closure assembly set forth in claim 5 wherein said peripheral portion of said  
2   valve includes a peripheral bead captured between said collar deck and said base cylindrical wall.

7.

1           The closure assembly set forth in claim 1 wherein said valve has crossed dispensing  
2   slits in said inner portion.

8.

1           A dispensing closure for fluid products, which comprises:  
2           a closure base including a ledge with a skirt for external securement to a container  
3 finish and an opening on said ledge,  
4           a lid connected to said base by at least one hinge, and  
5           a dispensing valve of flexible resilient elastomeric construction, said dispensing  
6 valve having a peripheral portion secured to said base at said opening in said ledge, an annular  
7 wall portion extending from said peripheral portion, an inwardly concave inner portion extending  
8 radially inwardly from said annular wall portion, and at least one dispensing slit in said inner  
9 portion.

9.

1           The closure set forth in claim 8 wherein said closure base has an inner skirt for  
2 securement to a container finish and an outer skirt spaced radially outwardly from said inner skirt.

10.

1           The closure set forth in claim 8 wherein there is a cylindrical wall on said base  
2 having an external bead, and said lid includes an inner wall with an internal bead for receipt over  
3 said external bead for securing said lid in a closed position over said valve.

11.

1           The closure set forth in claim 8 wherein said at least one hinge comprises a pair  
2 of snap hinges for pivoting said lid between a closed position over said base and said valve, and  
3 an open position spaced from said base and said valve.

12.

1                   The closure assembly set forth in claim 11 wherein said hinges integrally pivotally  
2 couple said lid to said base.

13.

1                   A dispensing closure for fluid products, which comprises:  
2                   a closure base including a ledge with a skirt, a cylindrical wall extending from said  
3 ledge, and an external bead around said cylindrical wall,  
4                   a collar having a deck with a central opening, a first cylindrical wall surrounding  
5 said opening, an external bead around said first cylindrical wall, a second cylindrical wall having  
6 an internal bead surrounding and secured over said external bead on said cylindrical wall of said  
7 base, and  
8                   a dispensing valve of flexible resilient elastomeric construction, said dispensing  
9 valve having a peripheral portion captured in compression between said collar deck and said base  
10 cylindrical wall for securing said valve in position and simultaneously functioning as a seal  
11 between said base and said collar, an intermediate portion underlying said collar deck, an annular  
12 wall portion extending from an inner end of said intermediate portion radially inwardly adjacent  
13 to an inner surface of said first cylindrical collar wall, an inwardly concave inner portion extending  
14 radially inwardly from said annular wall portion, and at least one dispensing slit in said inner  
15 portion.

14.

1           The closure set forth in claim 13 wherein said closure base includes a conical outer  
2 wall extending from said skirt to said ledge, wherein said collar includes a conical wall spaced  
3 radially outwardly from said second cylindrical wall, said conical wall of said collar having an  
4 external surface that blends with and forms a continuation of an external surface of said conical  
5 wall of said closure base, and wherein said lid has a conical outer wall with an external surface  
6 that blends with and forms a continuation of said external surface of said conical wall of said  
7 collar.

15.

1           The closure set forth in claim 14 wherein said inner wall of said closure base is an  
2 extension of said cylindrical wall extending from said ledge.

16.

1           The closure set forth in claim 14 wherein said annular wall portion of said valve  
2 is spaced radially inwardly from said inner surface of said second cylindrical collar wall.

17.

1           The closure set forth in claim 13 wherein said closure base has an inner skirt for  
2 securement to a container finish and an outer skirt spaced radially outwardly from said inner skirt.

18.

1           A dispensing closure for fluid products, which comprises:  
2           a closure base including a ledge with a skirt for external securement to a container  
3   finish and a wall extending from said ledge,  
4           a collar having a deck with a central opening, and a wall externally surrounding  
5   and secured to said wall on said base, and  
6           a dispensing valve of flexible resilient elastomeric construction, said dispensing  
7   valve having a peripheral portion captured between said collar deck and said base wall for  
8   securing said valve in position and simultaneously functioning as a seal between said base and said  
9   collar, an intermediate portion in facing engagement with said collar deck, an annular wall portion  
10   extending from an inner end of said intermediate portion, an inner portion extending radially  
11   inwardly from said annular wall portion, and at least one dispensing slit in said inner portion.

19.

1           The closure set forth in claim 18 wherein said collar is externally secured to said  
2   wall on said base.

20.

1           The closure set forth in claim 19 wherein said collar has a second wall surrounding  
2   said opening, and wherein said annular wall portion of said valve is radially inwardly adjacent to  
3   an inner surface of said second wall.

21.

1           The closure set forth in claim 20 wherein said walls on said base and said collar  
2   are cylindrical.

22.

1           The closure set forth in claim 18 wherein said collar is internally secured to said  
2   wall on said base.

23.

1           The closure set forth in claim 22 wherein said wall on said base forms a channel  
2   and said collar is secured to said wall within said channel.

24.

1           The closure set forth in claim 23 wherein said wall has a bead that extends into said  
2   channel and said collar is snapped over said bead.

25.

1           A dispensing closure for fluid products, which comprises:  
2           a closure base including a ledge with a skirt for external securement to a container  
3   finish and an opening in said ledge,  
4           a lid integrally connected to said base by at least one hinge, and  
5           a dispensing valve of flexible resilient elastomeric construction, said dispensing  
6   valve having a peripheral portion secured to said base at said opening on said ledge, an annular

7 wall portion extending from said peripheral portion, an inner portion extending radially inwardly  
8 from said annular wall portion, and at least one dispensing slit in said inner portion.

26.

1 A dispensing closure for fluid products, which comprises:

2 a closure base including a ledge with a skirt for external securement to a container  
3 finish, and a cylindrical wall extending from said ledge and forming a channel that opens axially  
4 of said base,

5 a collar having a deck with a central opening, and a cylindrical wall secured within  
6 said channel to said cylindrical wall on said base, and

7 a dispensing valve of flexible resilient elastomeric construction, said dispensing  
8 valve having a peripheral portion captured between said collar deck and said base cylindrical wall  
9 for securing said valve in position and simultaneously functioning as a seal between said base and  
10 said collar, an intermediate portion in facing engagement with said collar deck, an annular wall  
11 portion extending from an inner end of said intermediate portion radially inwardly adjacent to an  
12 inner surface of said cylindrical wall on said base, an inner portion extending radially inwardly  
13 from said annular wall portion, and at least one dispensing slit in said inner portion.

27.

1 The closure set forth in claim 26 wherein said wall on said base has a bead that  
2 extends radially outwardly into said channel, and said collar has a radially inwardly extending bead  
3 that is received by snap fit over said bead on said base.



28.

1           The closure set forth in claim 27 wherein said ledge has an undersurface and said  
2   deck has an undersurface that is either flush with said undersurface of said ledge or disposed on  
3   a side of said undersurface of said ledge away from said mouth.

29.

1           The closure set forth in claim 26 wherein said closure base has an inner skirt for  
2   securement to a container finish and an outer skirt spaced radially outwardly from said inner skirt.

30.

1           The closure set forth in claim 26 wherein said annular wall portion of said valve  
2   is spaced radially inwardly from an inner surface of said collar wall.

31.

1           The closure set forth in claim 30 wherein said peripheral portion of said valve  
2   includes a peripheral bead captured between said collar deck and said base cylindrical wall.

32.

1           The closure set forth in claim 31 wherein said valve has crossed dispensing slits  
2   in said inner portion.

33.

1           A dispensing closure for fluid products, which comprises:  
2           a closure base including a ledge with a skirt for external securement to a container  
3   finish, and an opening surrounded by a channel that opens axially of said base,  
4           a lid integrally connected to said base by at least one hinge, and  
5           a dispensing valve of flexible resilient elastomeric construction, said dispensing  
6   valve having a peripheral portion secured within said channel at said opening, an annular wall  
7   portion extending from said peripheral portion, an inner portion extending radially inwardly from  
8   said annular wall portion, and at least one dispensing slit in said inner portion.

34.

1           The closure set forth in claim 33 wherein said closure base has an inner skirt for  
2   securement to a container finish and an outer skirt spaced radially outwardly from said inner skirt.

35.

1           The closure set forth in claim 33 wherein said at least one hinge comprises a pair  
2   of snap hinges for pivoting said lid between a closed position over said valve and an open position  
3   spaced from said valve.

36.

1           The closure set forth in claim 35 wherein said hinges integrally pivotally couple  
2   said lid to said base.

37.

- 1                   The closure set forth in claim 33 wherein said valve has crossed dispensing slits
- 2   in said inner portion.